Communicating Beach Water Quality

Modernized eBEACHES Communicating Beach Conditions at the National Level

A Great Lakes Restoration Initiative Project

Great Lakes Beaches Association

Bill Kramer, CEP, PM
US EPA
September 27-28, 2011



Where We Are Going (2012)

A Great Lakes Restoration Initiative Project

- More useful and appealing EPA webpage
- More timely information to the public (e.g., annual to weekly/daily/hourly)
- Increased analytical capability at beach and aggregate levels; e.g., trends, exceedences, advisories and closures, pollution sources
- Real-time verification (editing) tool
- Less effort for states to submit and approve data

\$EPA

11/21/2011

Improve eBEACHES System Responsiveness

Type of Data (Database)	pe of Data (Database) Started (2003 Data) (2		Modernized (2012 Data)
Notification (PRAWN -OST)	Annually	Annually	2 hours
Verification	Not Done	Annually	Any Time
Location maps (RAD-OWOW)	Irregularly	Monthly	Weekly
Verification	Not Done	Monthly	Any Time
Monitoring (WQX/STORET-OWOW)	Monthly	Weekly (STORET)	2 hours (WQX)
Verification	Not Done	Twice Monthly	Any Time



11/21/2011

Current page is frozen map image

- No choice of base maps

--- Green - No advisory

--- Grey – not reporting

--- Khaki - Historical Beach

- Not show status:

--- Red - Closure



BEACON - Beach Advisory and Closing On-line Notification

Recent Additions | Contact Us | Print Version

EPA Home > Water > Water Science > Beaches > BEACON > VA > Virginia Beach City > Local Beach

Beach Profile for 45TH STREET



Beach Watch Home

Back to National Map

Back to State Map

Back to County Map



Click here for Historical Data Data for: 2011

Beach Advisories and Closings: 0

Beach Contact Information: Name: Frank Scanlon

Agency: VIRGINIA DEPARTMENT OF HEALTH

Phone: 757-518-2672

Email: skip.scanlon@vdh.virginia.gov

Advisories & Closings **Local Contacts**

This page lists General Beach Information.

Reach Location

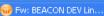
Local intranet

















10

DEMONSTRATION

Of Beta Enhancements to

"Find your Beach"

[From live design site, some of the following features may change]

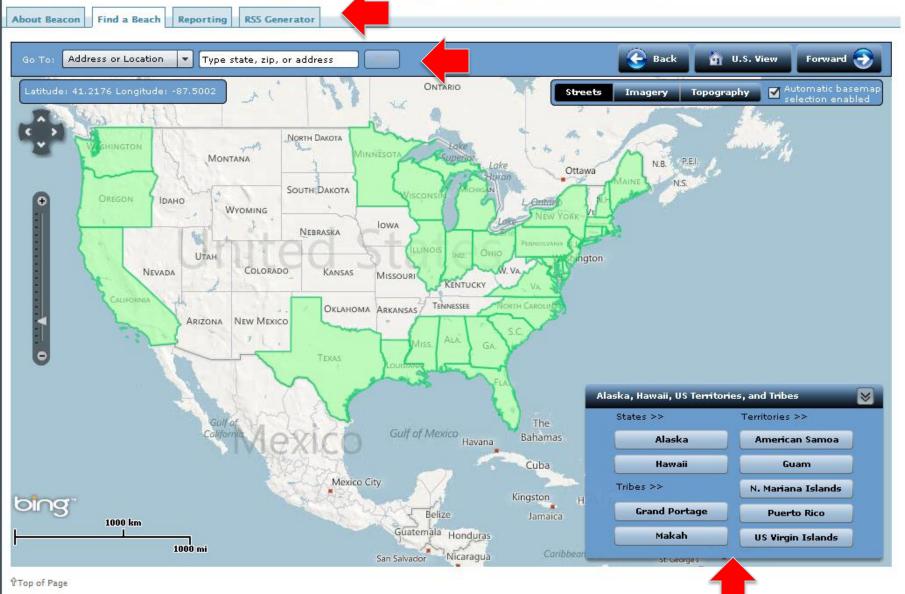


11/21/2011 5

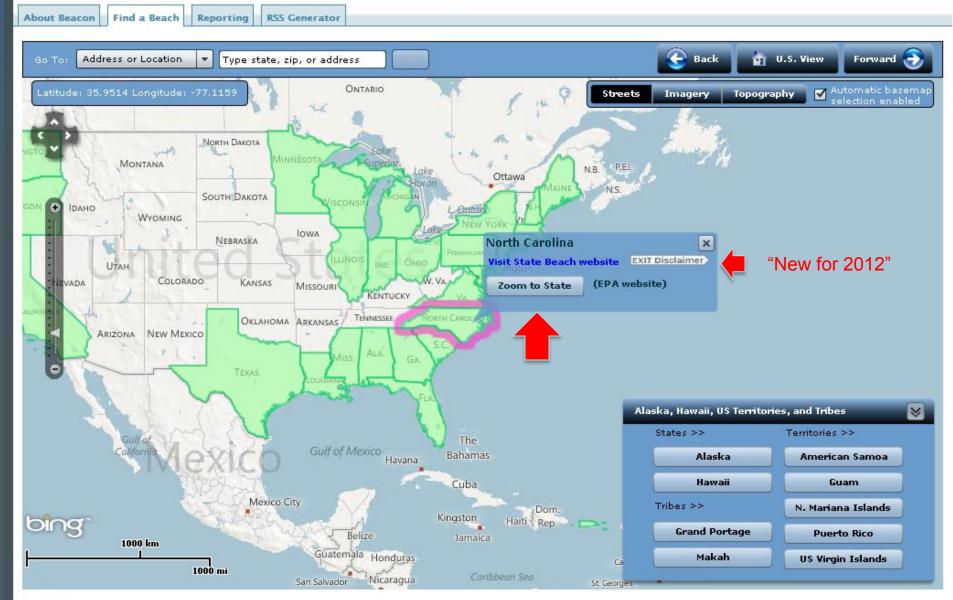


You are here: EPA Home » Beaches » BEACON » Find a Beach

Contact



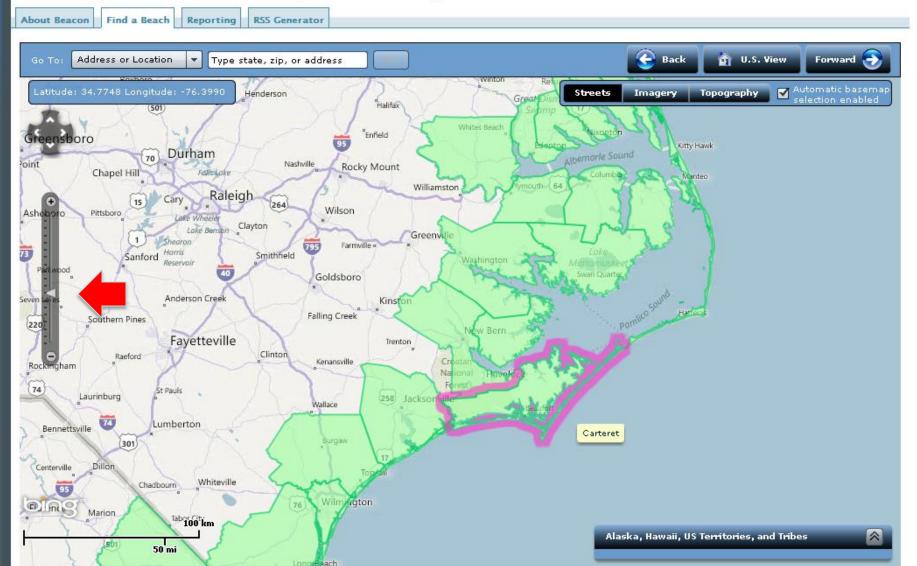
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You are here: EPA Home » Beaches » BEACON » Find a Beach

M Cont

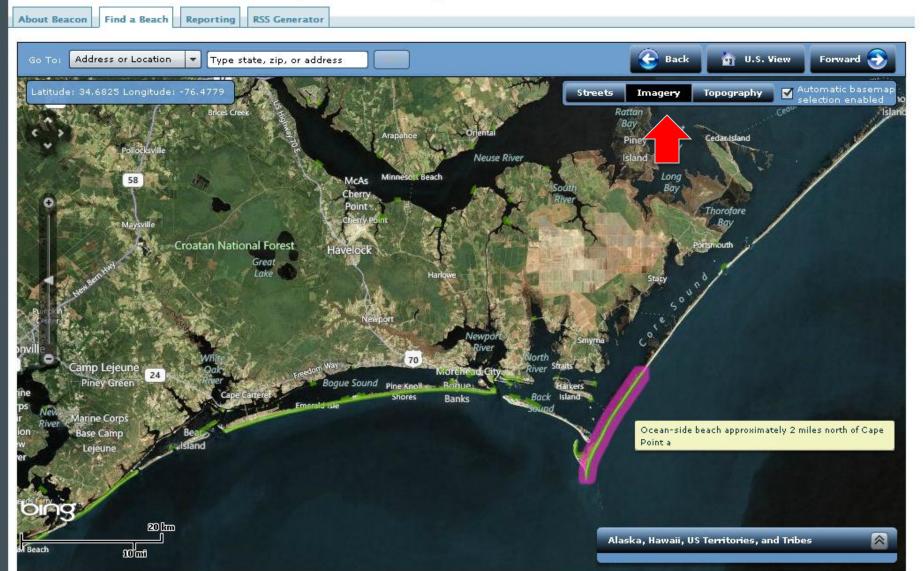
SEARCH



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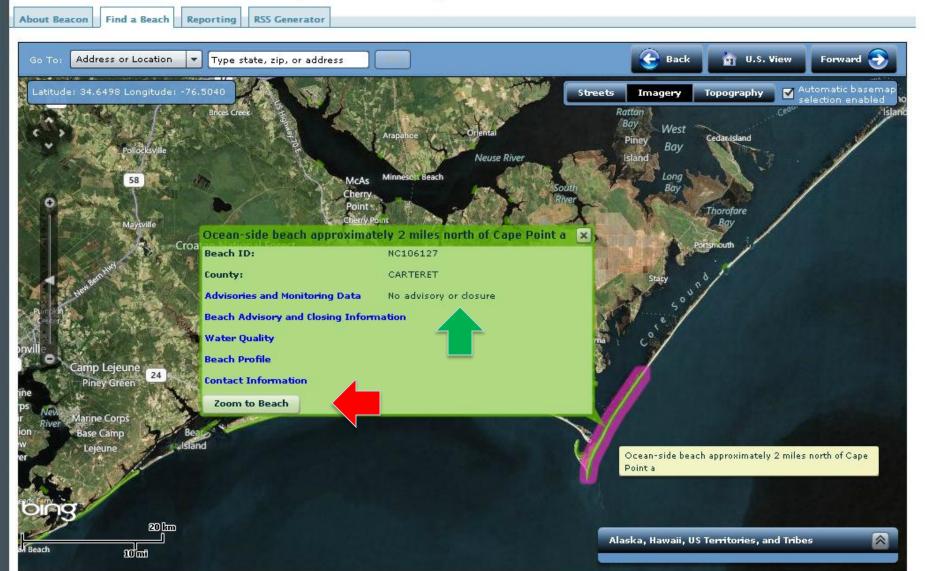
SEARC



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SEARC



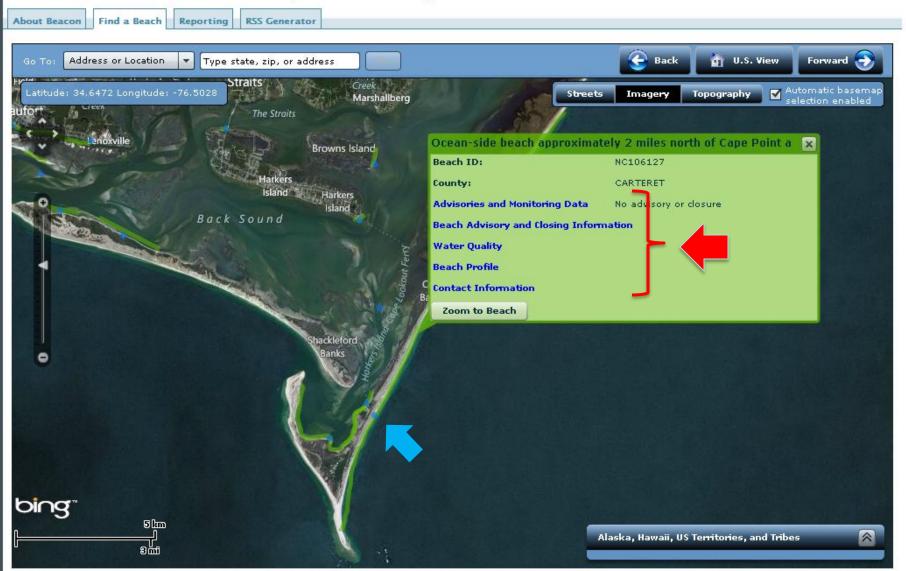
SEARCH

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You are here: EPA Home » Beaches » BEACON » Find a Beach



Beach Profile Page

County: CARTERET

Water Body Name:

Water Body Type:

Beach Ownership/Accessibility: Public/Private

Access Comment: Effective Year:

Beach Act Beach: Yes Beach Tier:

Monitoring Season and Frequency

Swim Season Start Date: Swim Season End Date:

Monitored Irregularly:

Swim Season Length: 214 DAYS

Swim Season Monitoring Frequency: 5

PER_MONTH Monitoring Reporting Frequency: Off Season Monitoring Frequency:

5 PER_MONTH

"New for 2012"

No

Monitored Irregularly Comments:

Criterion Names and Values: Water Monitoring Locations:



"New for 2012"

Advisories

Pollution Sources:

Advisory Reporting Frequency:

Pollution Source Investigated?: Yes

-76.5513610733316

"New for 2012"

Location

Start Longitude:

Start Latitude: 34.6303829749997

End Latitude: 34.7173467213199

End Longitude: -76.4449310196359

Beach Length: 16914 FT Source Map Scale: 100000

Horizontal Collection Method: GPS Horizontal Ref Datum Name: NAD83

Contact Information

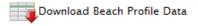
Beach Website Address: -Beach Contact Name:

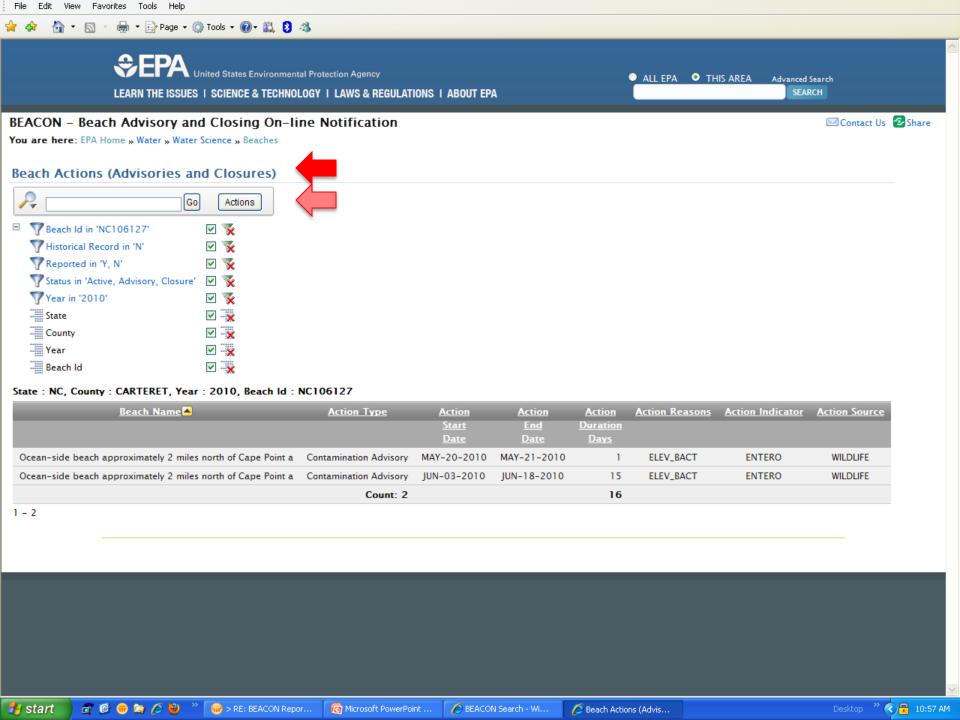
Beach Contact Phone: Beach Contact Email:











BEACON - Beach Advisory and Closing On-line Notification

You are here: EPA Home » Water » Water Science » Beaches

Beach Actions (Advisories and Closures)



State: NC, County: CARTERET, Year: 2010, Beach Id: NC106127

Beach Name 🔼	Action Type	<u>Action</u>	<u>Action</u>	<u>Action</u>	Action Reasons	Action Indicator	Action Source
		<u>Start</u>	<u>End</u>	<u>Duration</u>			
		<u>Date</u>	<u>Date</u>	<u>Days</u>			
Ocean-side beach approximately 2 miles north of Cape Point a	Contamination Advisory	MAY-20-2010	MAY-21-2010	1	ELEV_BACT	ENTERO	WILDLIFE
Ocean-side beach approximately 2 miles north of Cape Point a	Contamination Advisory	JUN-03-2010	JUN-18-2010	15	ELEV_BACT	ENTERO	WILDLIFE
	Count: 2			16			

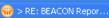
State: NC, County: CARTERET, Year: 2009, Beach Id: NC106127

Beach Name Action Type Action Indicator Action Reasons **Action Source** Start End **Duration Date** <u>Days</u> <u>Date</u> Ocean-side beach approximately 2 miles north of Cape Point a

















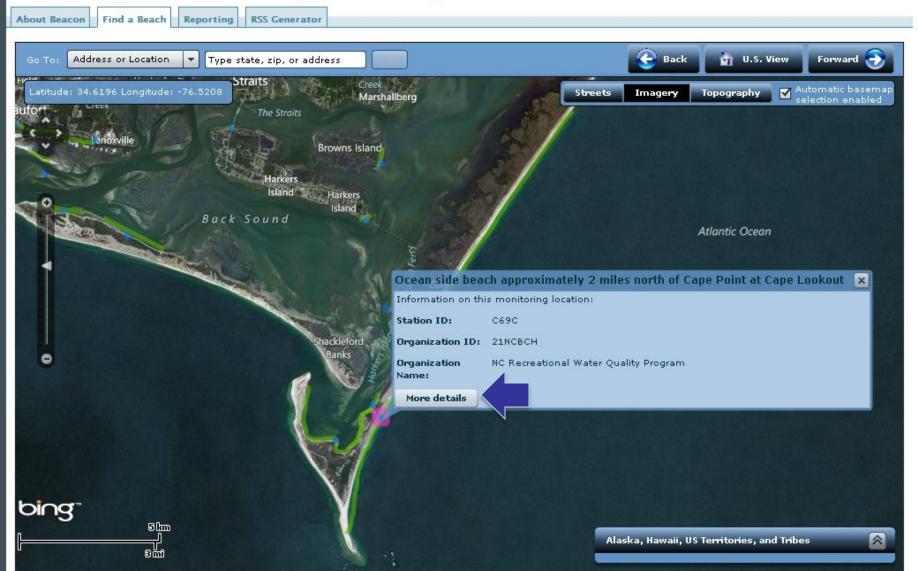


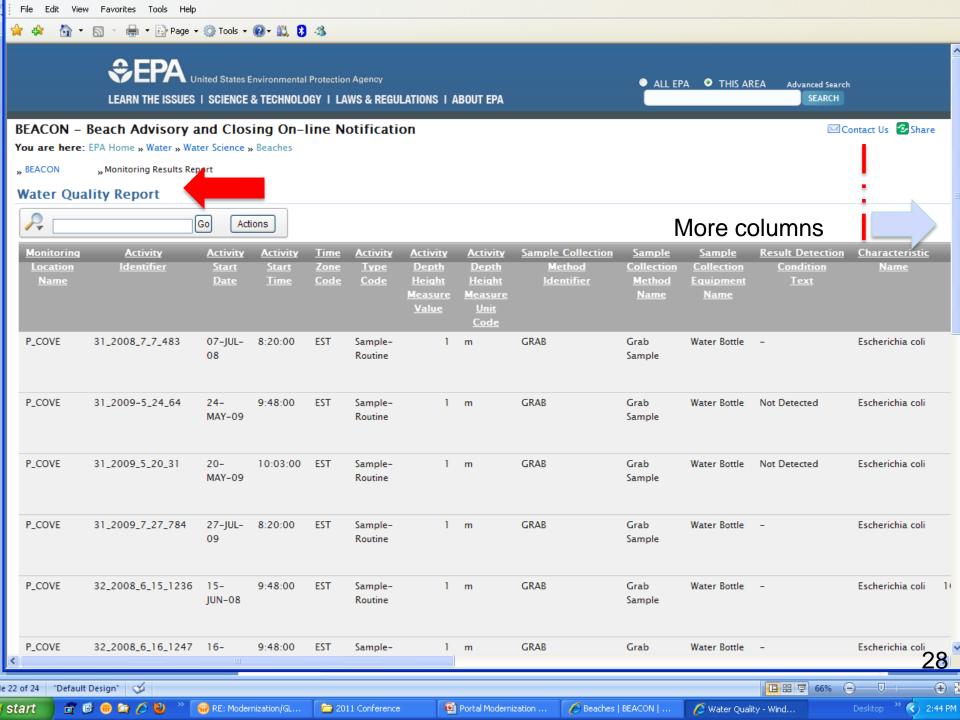
Contact Us 2

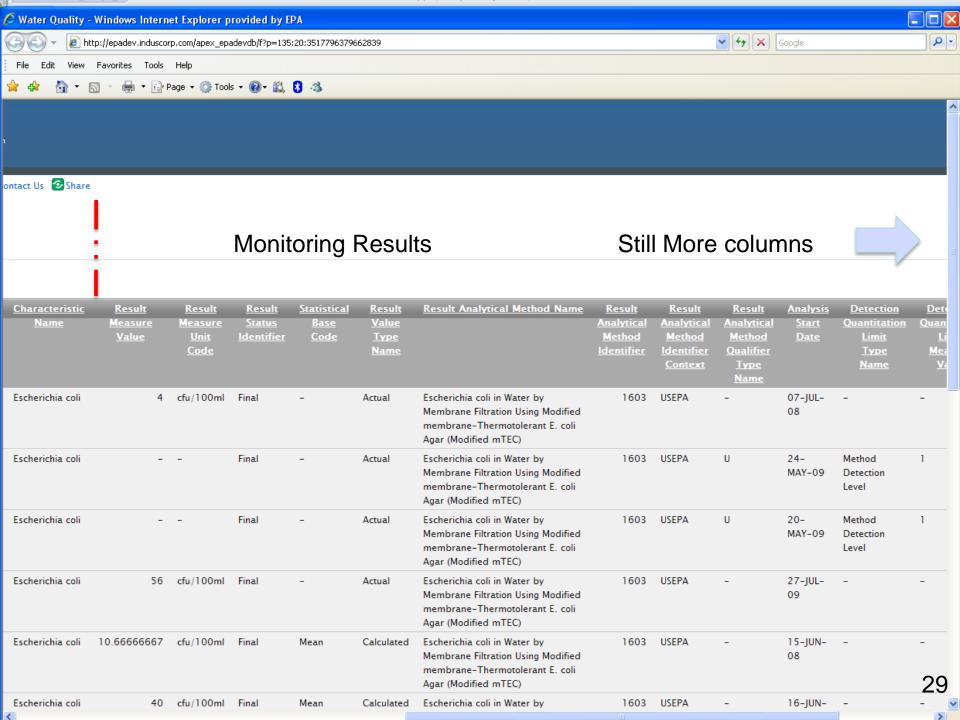
You are here: EPA Home » Beaches » BEACON » Find a Beach

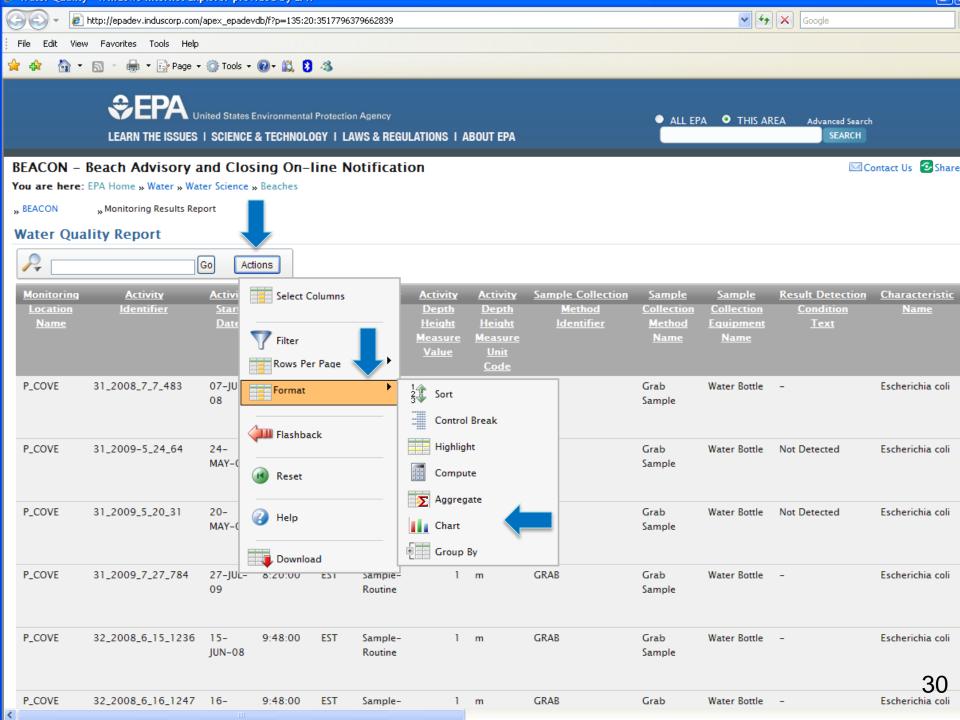
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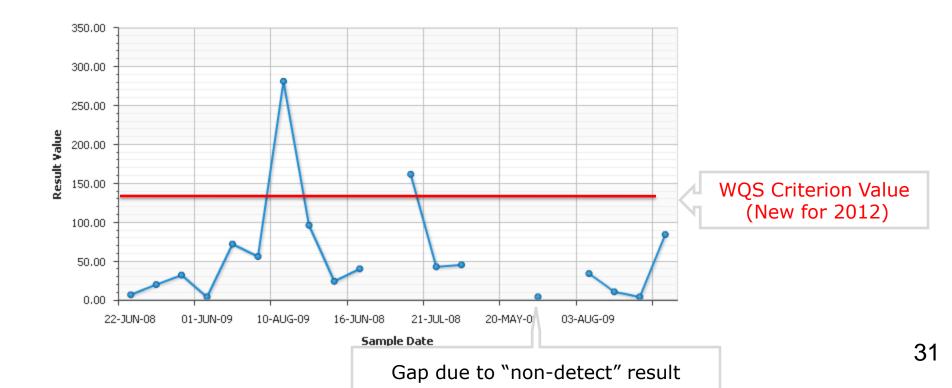


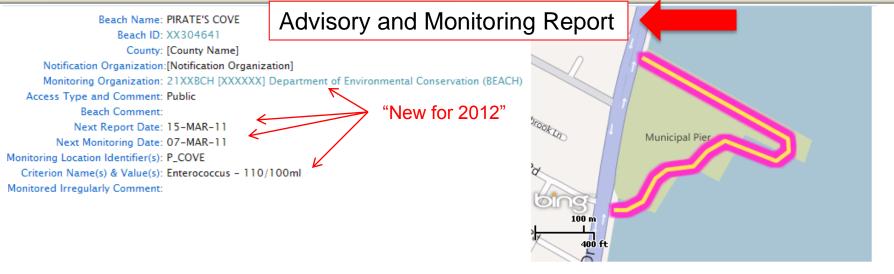












Beach Activities for the last 2 weeks (click to view additional beach advisory and closing data)

<u> </u>			Go Action	s							
Actions	Sample	<u>Start Date</u> ▼	Activity End Date	<u>Duration</u>	<u>Description</u>	Comment	<u>Possible</u> <u>Cause</u>	Monitoring Location Identifier	Possible Source	Monitoring Result	Value & Unit
Advisory	-	01-MAR-11	-	-	Due to a storm, elevated bacteria levels are predicted. A public health advisory will be issued. This site will be retested.	Model Prediction	Sewage	-	Outfall #X	-	-
Open	Sample	28-FEB-11	-	-	Routine Sample	-	-	P_COVE	-	Enterococcus	40/100ml
Open	Sample	22-FEB-11	-	-	Routine Sample	-	-	P_COVE	-	Enterococcus	60/100ml
Advisory	-	18-FEB-11	22-FEB- 11	5	Because elevated bacteria levels have persisted, a public health advisory will be issued. This site will be retested.	-	Sewage	P_COVE	Outfall #X	Enterococcus	120/100ml
Closure	-	16-FEB-11	17-FEB- 11	2	Because elevated bacteria levels have persisted, a public health advisory will be issued. This site will be retested.	-	Sewage	P_COVE	Outfall #X	Enterococcus	240/100ml
Open	Sample	14-FEB-11	-	0	Routine Sample	-	-	P_COVE	-	Enterococcus	40/100ml

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SEARCH



BEACON - Beach Advisory and Closing On-line Notification



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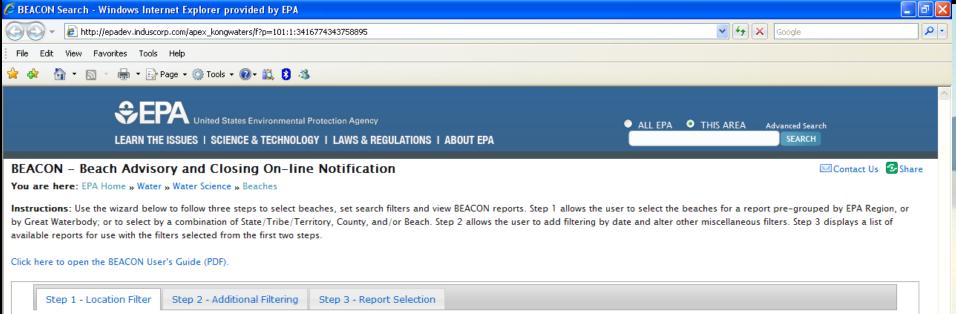


Reports

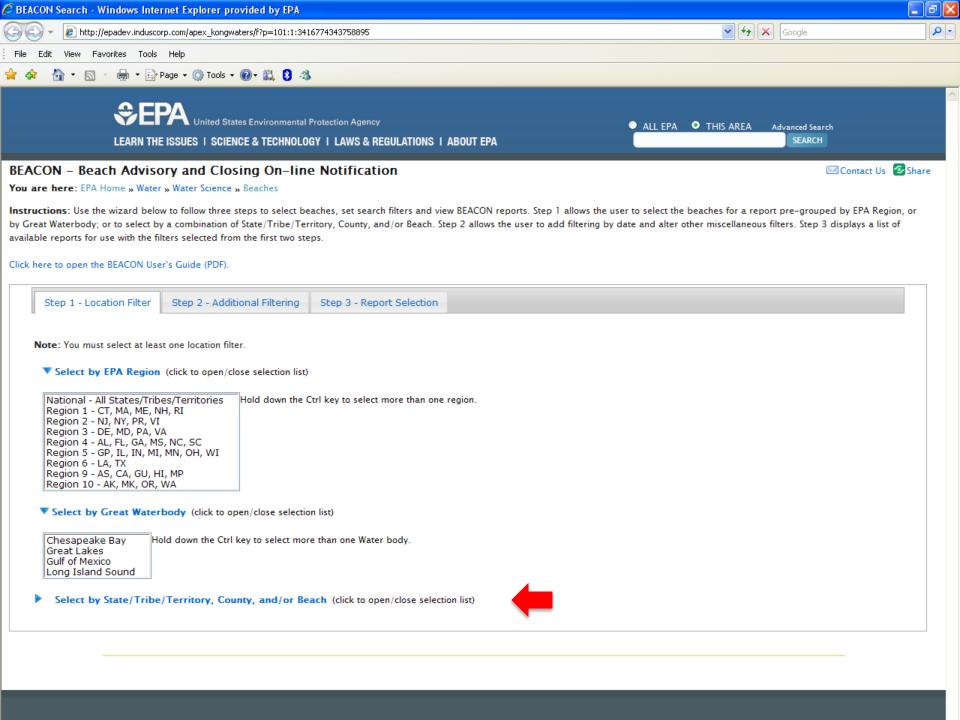
- Standard and Custom
 - filter by: where, when, content; select, sequence columns
- Single Beach
- Multiple Beaches and Jurisdictions e.g.:
 - ► EPA Region, GL, LIS, CB, GOM, Nationwide
- Variable timeframes
- Multiple and Single Data Type Reports
 - Recent Monitoring and Advisory data
 - ► Location, monitoring, advisory/closures
- Downloadable, automatic update notification

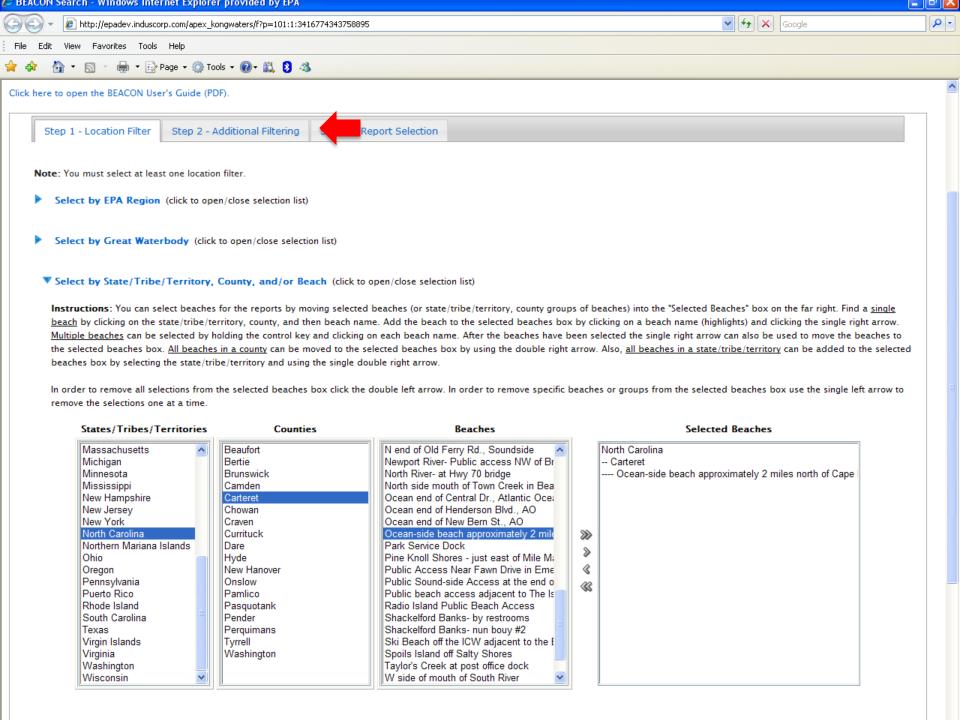
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11/21/2011 22









BEACON - Beach Advisory and Closing On-line Notification Contact Us You are here: EPA Home » Water » Water Science » Beaches Instructions: Use the wizard below to follow three steps to select beaches, set search filters and view BEACON reports. Step 1 allows the user to select the beaches for a report pre-grouped by EPA Region, or by Great Waterbody; or to select by a combination of State/Tribe/Territory, County, and/or Beach. Step 2 allows the user to add filtering by date and alter other miscellaneous filters. Step 3 displays a list of available reports for use with the filters selected from the first two steps. Click here to open the BEACON User's Guide (PDF). Step 3 - Report Selection Step 1 - Location Filter Step 2 - Additional Filtering Select by Date (click to open/close selection list) Start Date: End Date: Other Date Options: O Swim Season Rolling Year (12 Months) O Year to Date Calendar Year: 2011 A Hold down the Ctrl key to select more than one year.

Select by Miscellaneous Filters (click to open/close selection list)



Instructions: This outline will allow you to select alternative filters than those preset for the reports. The preset filters show a green checkmark and include the following: Active, Reporting, No Advisory or Closure, Advisory, Closure, Not Reporting, and Public Access. Please note that the tree structure is fully expanded automatically to display all miscellaneous filtering options. The user can turn off a preset filter by clicking in a checked box, or add a filter by clicking in an empty box.

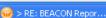




















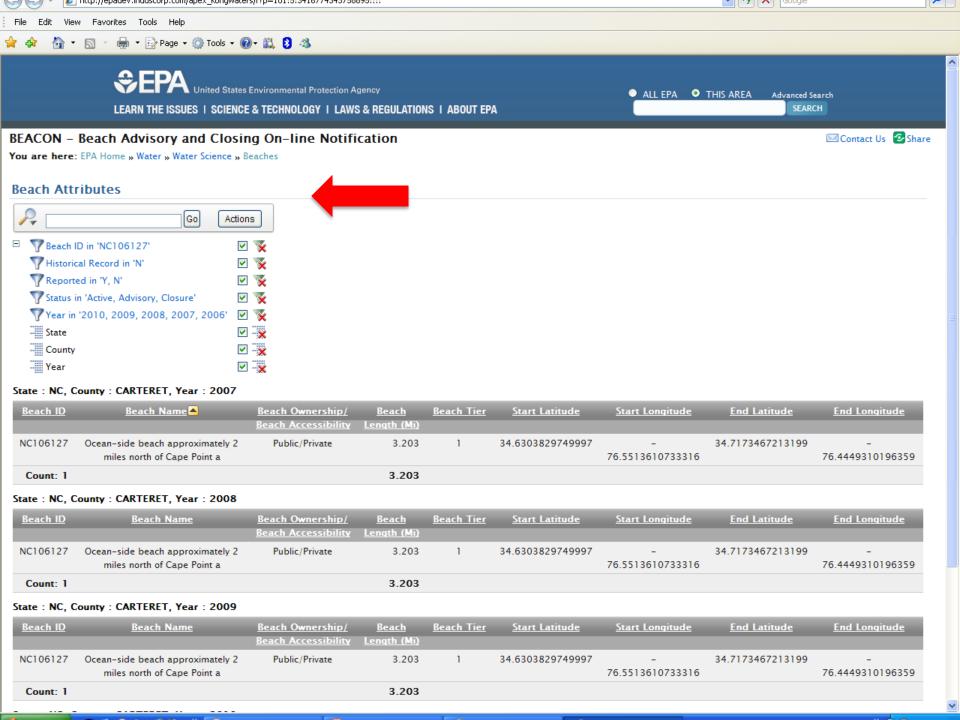


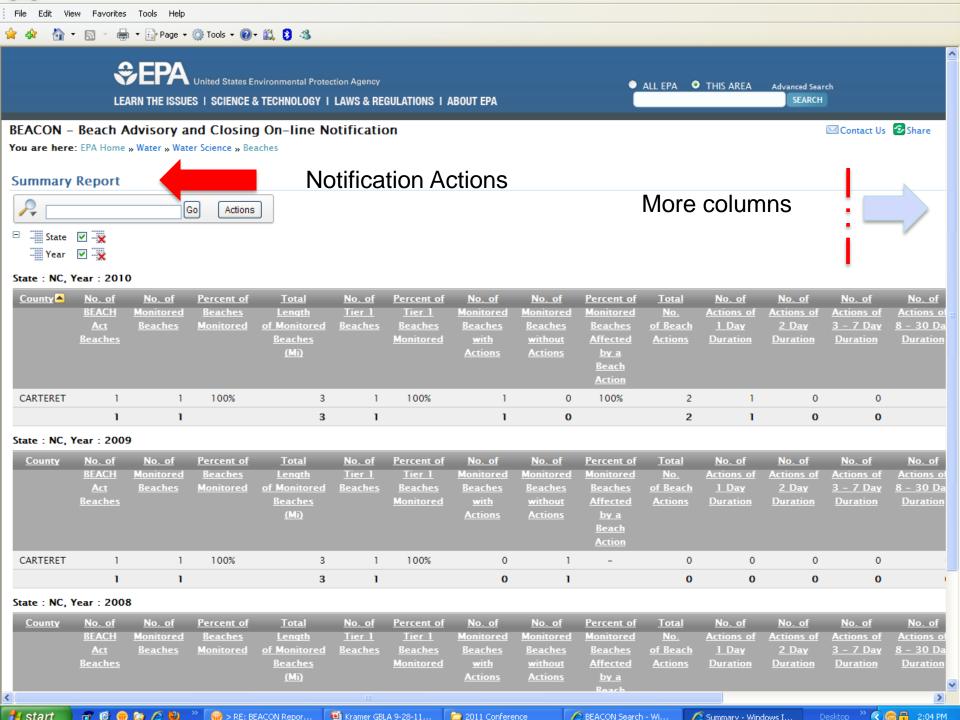


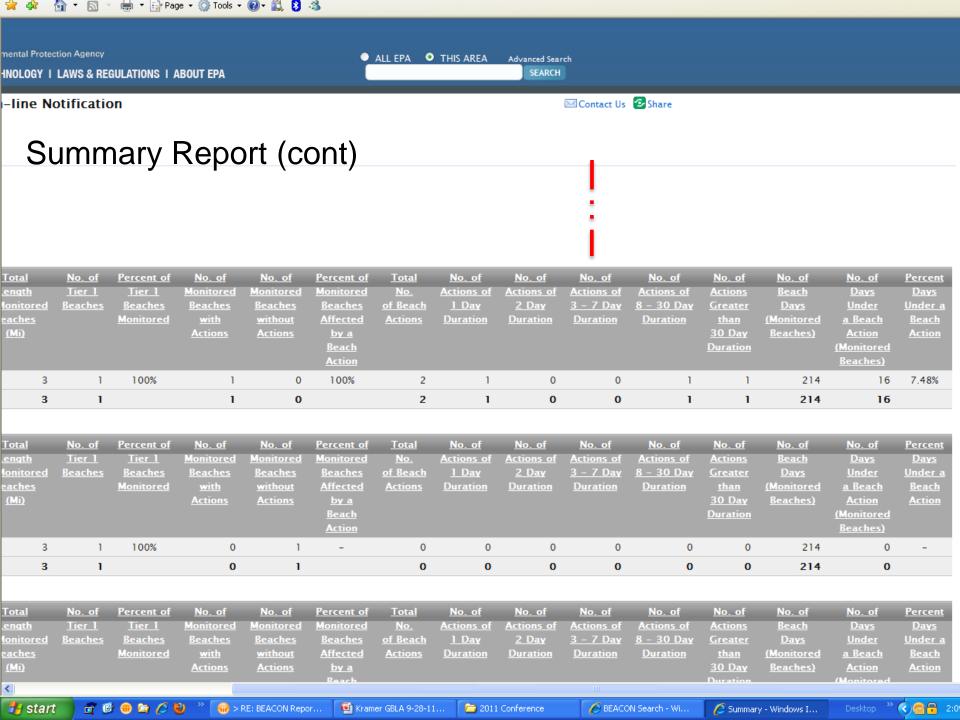


Reports Tab

Action Duration	For each monitored BEACH Act beach with an action: Each action for each beach is sorted into one of five action duration groups (1 day duration, 2 days duration, 3-7 days duration, 8-30 days duration, or greater than 30 days duration). The list is sorted by county and beach name.
Advisory and Monitoring	For each BEACH Act beach: Presents a condensed combination of the "Action" and "Water Quality" Reports for the most recent 2 week period of submitted data (most recent to older order) including: dates, duration of actions, basis for action, possible cause and source, monitoring results. The list is sorted by "state", county, and beach name.
Beach Actions (Advisories and Closures)	For each beach action at a monitored BEACH Act beach: Presents details of each beach action including: (1) type of action (e.g., closure, rain advisory, contamination advisory), (2) starting and ending date of the action, (3) duration of the action in days ("day" is defined as: an action on one calendar day equals one "day", or for multicalendar day actions, a "day" is each 24-hour time block, not each calendar day), (4) action reason, source, and the indicator used to trigger the action. The list is sorted by county, beach name and action start date.
Beach Attributes	For each BEACH Act beach: Identifies attributes of each beach including: (1) beach tier ranking, (2) beach length, and (3) latitude/longitude. The list is sorted by county and beach name.
Beach Days	For each monitored BEACH Act beach: The number of beach days in the swimming season (based on swimming season length) is presented for each beach. If the beach had an action (1) the total number of action days and (2) the percentage of beach days the beach was under an action are also presented. The list is sorted by county and beach name.
Beach Monitoring Frequency	For each BEACH Act beach: Identifies swim season and monitoring attributes of each beach including: (1) swimming season and (2) in- and off-season monitoring frequency. The list is sorted by county and beach name.
Beach Profile	For each BEACH Act beach: Presents beach administrative information including: beach name, beach ID, location, contact information, public access, Tier, swim season, monitoring and reporting frequency, possible pollution sources. The list is sorted by "state", county, and beach name.
Possible Pollution Sources	For each monitored BEACH Act beach: Identifies if possible pollution sources have been investigated and, if so, what are the possible sources that might affect beach water quality. The list is sorted by county and beach name.
RSS Feed	News feed for Beaches: Brief news feed that links to the advisory and monitoring report for the selected beach. The RSS feed link can only display about 200 beaches at a time. If too many beaches are selected to display in the RSS feed, then any over the 200 limit will be excluded. In order to view an RSS feed, the user must have an RSS feed reader installed. Some browsers may come standard with feed readers but other browsers may require a separate download. More information about news feeds (also called "RSS") from USA.gov.
State Summary	For each county: Displays key summary statistics concerning BEACH Act beaches including: (1) number and length of monitored beaches, (2) number of monitored Tier 1 beaches, (3) number and durations of beach actions, and (4) the number of beach days under an action. The list is sorted by county name. Please note : this report can take several minutes to load if only a few filters have been applied.
Tier 1 Stats	For each BEACH Act beach designated as Tier 1: Presents beach attributes and action information including: (1) beach length, (2) swim season monitoring frequency, (3) number of beach days, and (4) number of days under an action. The list is sorted by county and beach name. Please note : this report can take several minutes to load if only a few filters have been applied.
Water Quality	For each monitored BEACH Act beach: Presents details of water quality monitoring results collected for the beach program (from WQX/STORET) including: beach ID, beach name, sampling station ID, date/time of sample, collection method, characteristic(s) (e.g., pathogen indicator) sampled, results, analytical method, statistic type (e.g. geometric mean). The list is sorted by "state", county, and beach ID, station ID. date of sample (recent to older).



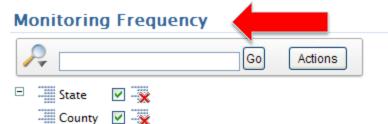




BEACON - Beach Advisory and Closing On-line Notification

You are here: EPA Home » Water » Water Science » Beaches

» BEACON » Monitoring Frequency



Monitoring Frequency and Season

State: XX, County: ALCONA

<u>Beach ID</u>	<u>Beach Name</u>	<u>Swim</u> <u>Season</u> Length	Swim Season Length Units	<u>Swim</u> <u>Season</u> <u>Monitor Freq</u>	<u>Swim</u> <u>Season</u> <u>Monitor</u> <u>Freq Units</u>	Off Season Monitor Freq	Off Season Monitor Freq Units
XX556458	Sturgeon Point State Park	150	DAYS	1	PER_WEEK	0	PER_WEEK
XX388337	Harrisville Public Access	150	DAYS	0	PER_WEEK	0	PER_WEEK
XX000293	Black River Public Access	150	DAYS	1	PER_WEEK	0	PER_WEEK
XX000348	Harrisville State Park	150	DAYS	1	PER_WEEK	0	PER_WEEK
XX589651	Negwegon State Park	150	DAYS	1	PER_WEEK	0	PER_WEEK
XX680454	Trask Lake Road Beach	150	DAYS	1	PER_WEEK	0	PER_WEEK
XX908114	Greenbush Township	150	DAYS	1	PER_WEEK	0	PER_WEEK
Count: 7				6			

State: XX, County: ALGER

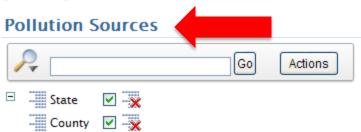
<u>Beach ID</u>	<u>Beach Name</u>	<u>Swim</u>	<u>Swim</u>	<u>Swim</u>	<u>Swim</u>	Off Season	Off Season
		<u>Season</u>	<u>Season</u>	<u>Season</u>	<u>Season</u>	<u>Monitor</u>	<u>Monitor</u>
		<u>Length</u>	Length Units	Monitor Freq	<u>Monitor</u>	<u>Freq</u>	Freq
					Frea Units		Units



BEACON - Beach Advisory and Closing On-line Notification

You are here: EPA Home » Water » Water Science » Beaches

» BEACON » Pollution Sources



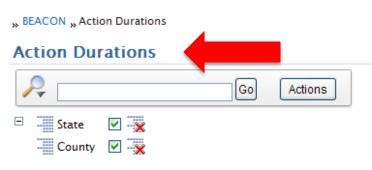
State: XX, County: ALCONA

Beach ID	<u>Beach Name</u>	<u>Poll.</u> Sources Investi- gated?	<u>Poll.</u> <u>Sources</u> <u>Found?</u>	<u>Runoff</u>	<u>Storm</u>	<u>Agri-</u> <u>cultural</u>	<u>Boat</u>	<u>CAFO</u>	<u>cso</u>	<u>022</u>	<u>POTW</u>
XX589651	Negwegon State Park	Yes	Yes	-	-	-	-	-	-	-	
XX556458	Sturgeon Point State Park	Yes	Yes	-	Yes	-	-	-	-	-	
XX000348	Harrisville State Park	-	-	-	-	-	-	-	-	-	
XX000293	Black River Public Access	Yes	Yes	-	Yes	-	-	-	-	-	-
XX680454	Trask Lake Road Beach	Yes	Yes	-	Yes	-	-	-	-	-	
XX908114	Greenbush Township	-	-	-	-	-	-	-	-	-	- 21
Count: 6		Count: 4	Count: 4	Count: 0	Count: 3	Count: 0	Count: 0	Count: 0	Count: 0	Count: 0	Count: 0

Chaha · VV County · ALLECAN

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You are here: EPA Home » Water » Water Science » Beaches



State: XX, County: ALCONA

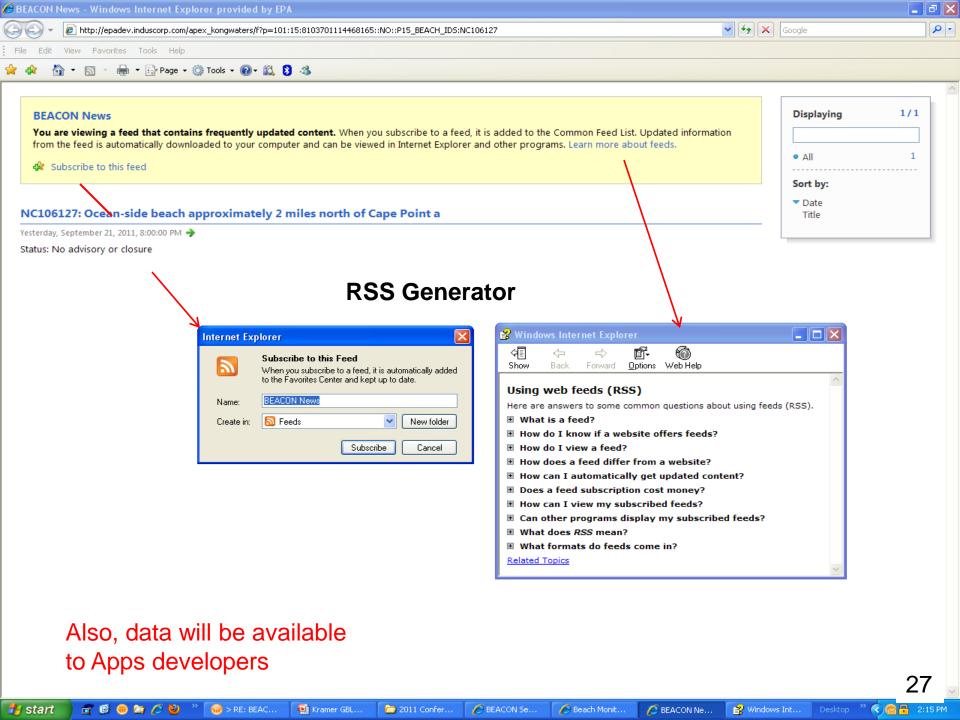
Count: 1		Count: 1	Count: 1	Count: 0	Count: 1	Count: 0	Count: 0	Count: 0
County 1		County 1	County 1	County O	County 1	County O	Count: 0	County 0
XX908114	Greenbush Township	1	2	-	1	-	-	-
				duration	<u>duration</u>	<u>duration</u>	<u>duration</u>	<u>duration</u>
			<u>Action</u>	<u>1 day</u>	<u>2 day</u>	<u>3 - 7 day</u>	<u>8 - 30 day</u>	<u>than 30 day</u>
		beach actions	<u>Days Under</u>	<u>actions of</u>	<u>actions of</u>	<u>actions of</u>	<u>actions of</u>	<u>actions greater</u>
<u>Beach ID</u>	<u>Beach Name</u>	<u>No. of</u>	No. of	<u>No. of</u>	<u>No. of</u>	No. of	<u>No. of</u>	<u>No. of</u>

State: XX, County: ALPENA

Beach ID	<u>Beach Name</u>	No. of	No. of	No. of	No. of	No. of	No. of	No. of
		beach actions	<u>Days Under</u>	actions of	actions of	<u>actions of</u>	<u>actions of</u>	<u>actions greater</u>
			<u>Action</u>	<u>1 day</u>	<u>2 day</u>	3 - 7 day	<u>8 - 30 day</u>	than 30 day
				<u>duration</u>	duration	duration	<u>duration</u>	<u>duration</u>
XX000282	Blair Street Park	1	1	1	-	-	-	-
Count: 1		Count: 1	Count: 1	Count: 1	Count: 0	Count: 0	Count: 0	Count: 0

State: XX, County: ARENAC

<u>Beach ID</u>	<u>Beach Name</u>	No. of	No. of	No. of	No. of	No. of	No. of	No. of
		<u>beach actions</u>	<u>Days Under</u>	<u>actions of</u>	<u>actions of</u>	<u>actions of</u>	<u>actions of</u>	actions greater than 30 d
			<u>Action</u>	<u>l day</u>	<u>2 day</u>	<u>3 - 7 day</u>	<u>8 - 30 day</u>	than 30 d
				<u>duration</u>	<u>duration</u>	<u>duration</u>	<u>duration</u>	<u>duration</u>



Communicating Beach Water Quality

Modernized eBEACHES Communicating Beach Conditions at the National Level

A Great Lakes Restoration Initiative Project

Great Lakes Beaches Association

Bill Kramer, CEP, PM
US EPA
September 27-28, 2011



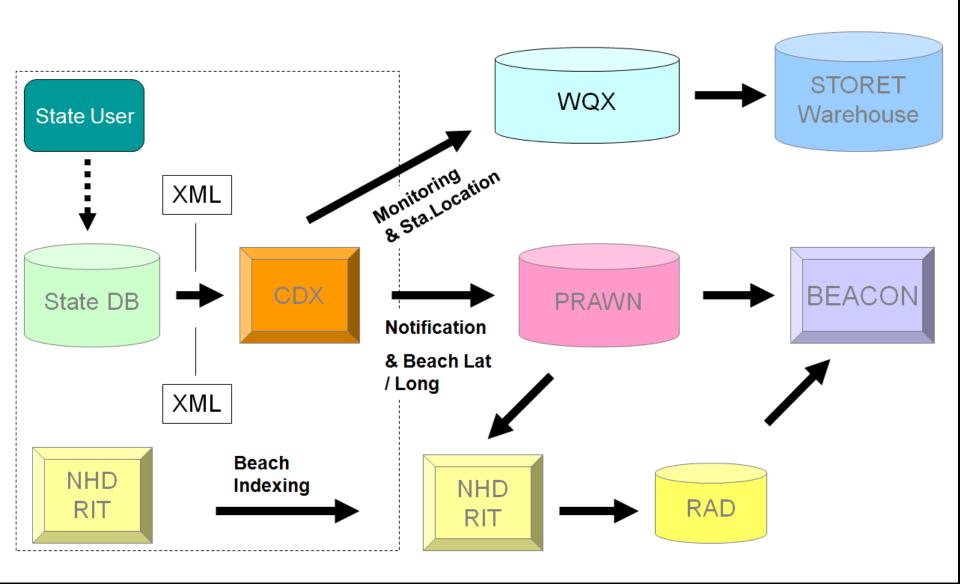
Validation Session Files to Jurisdiction

Tool prompts data owner to:

- A. Download report from BEACON webpage, edit DB of record, resubmit to CDX. (or)
- B. Tell Verification Tool to send file to owner only, owner edit DB of record, resubmit to CDX. (or)
- C. (If node exists) [Tool opens EN Services], execute send to jurisdiction node (Node then parses into DB of record) then resubmit to CDX via node. (or)
- D. B-C (w/o resubmit), AND Tool resubmits to CDX.



eBeaches Data Flow



eBEACHES Data Flow (2&24 Hr.)

With Q/A and Integrated Views and Reports

Enhancements to Upgrade eBeaches IT (Weekly)

